Sean Yan Jhia Choo

Contact Information

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Introduction

I am a 3rd year MEng student with practical experience in engineering projects, alongside a passion in programming and design. I am meticulous in my work and have an inherent curiosity to explore new opportunities. I aim to apply my skills into diverse aerospace projects that can challenge my abilities, while enabling me to showcase my strengths and creativity in solving problems.

Education Background

MEng (Hons) Aeronautics & Astronautics Engineering (2:1) **University of Southampton, Southampton, UK**	*Oct 2021 – Present*
Cambridge General Certificate of Education Advanced Level (3A* & 1A) **Taylor's College, Subang Jaya, Selangor**	*Jan 2020 – Jun 2021*
Cambridge International General Certification of Secondary Education (6A*, 3A & 1B) **Taylor's International Puchong, Puchong, Selangor**	*Dec 2017 – Nov 2019*

Work Experiences

UX Developer Internship, Ambrrr (www.ambrrr.com)   *Oct 2022 – Sep 2023*
- Worked in a startup environment creating a responsive website based given designs using html, CSS & JavaScript, along with multiple frameworks & APIs.

University Research Internship, University of Southampton Malaysia   *Jun 2022 – Sep 2022*
- Successfully investigated each countries' ability to produce biodiesel from the availability of raw materials using Excel & Power Pivot, with over 10 million cells.

Coding Team Member, Quizona Chemistry V2.0   *Jan 2022 – Jan 2022*
- Collaborated with the UI/UX team to implement the redesigned UI using Swift & Xcode. Achieving top 100 in the App Store's education category.

Engineering Experiences

Individual Project, Vibroacoustic analysis of thermal fatigued CFRP   *Oct 2023 – Present*
- Investigated the use of vibroacoustic methods and FE simulations, when analysing the health of CFRP used in hydrogen fuel tanks for a hydrogen fuelled future.

Programming Lead, Unmanned Aerial Vehicle (UAV) Design Project   *Feb 2023 – Jun 2023*
- Wrote and managed the Arduino circuit & code to ensure a seamless integration between the gimbal and data logger, along with the other electronics.

Arduino Coder, Dino Design Project   *Nov 2022 – Jan 2023*
- Wrote the complete code using Arduino code to enable multiple different movements and functions of the dinosaur with an emphasis on abstraction.

Mission Case Study, Jupiter Orbit Explorer   *Oct 2022 – Dec 2022*
- Analysed the communication window based on orbital behaviours of the planets and spacecraft using Python, to determine the power requirements for the s/c.

Product Design Lead, James Dyson Award 2022 – Tekkai *Apr 2022 – Jul 2022*
- Led a group of students to design a self-retracting electrical plug using SolidWorks and created the concept animation using Blender for the submission.

Awards & Achievements

Southampton Malaysia Aviator's Society (Best New Club/Society Award) *May 2023*
- Awarded by University of Southampton Malaysia Student Association for being a new society with the most student engagement.

Pecipta'22 International Conference by Institutions of Higher Learning (Gold Award) *Nov 2022*
- Awarded for the innovation of a mobile app, Quizona Chemistry, that can assist in the learning of chemistry subject for multiple syllabuses.

IPOSC 2022 Infographic Competition (Finalist) *Aug 2022*
- Successfully created an infographic about the oil palm industry and its contribution towards UN SDGs, which went on to become a finalist.

Defense, Security, Sustainability Competition (Gold Award & 1st Place in Category) *Aug 2022*
- Awarded by UPNM for a mobile application that improves Malaysian Education.

MyIPO (Intellectual Property Corporation of Malaysia) Certificates *Jul 2022*
- Curated an instruction manual for an educational app, Quizona Chemistry, and the manual for a DIY Dual-Fermometer Hygrometer using Adobe Illustrator.
- Ref number: LY2022J02865, LY2022J02866

Quizona Chemistry, Sijil Penghargaan Atas Komitmen Dalam Pembinaan Aplikasi *Mar 2022*
- Certificate of appreciation for the contribution towards an application for the chemistry subject by the ministry of education Johor and Johor Bahru

Taylor's Top Achiever Award, Taylor's College *Oct 2021*
- Awarded for achieving 3A* and 1A in Cambridge A Levels May June

Other Experiences

Secretary, Southampton Malaysia Aviator's Society (SMAS) *Sep 2022 – May 2023*
- Coordinated meetings and worked with 5 other committee members to curate marketing materials for club events and aviation industry related outings.

Group Member, 2022 SDG Summer Camp – Net Zero Carbon Fuels *Jun 2022 – Jul 2022*
- Explored ways to achieve the SDGs set by the UN and assisted in the group presentation about the viability of ammonia as fuel for coal powerplants.

Group Member, 'Green for Life' 2022 LCC International Summer School *Jun 2022 – Jul 2022*
- Explored the sustainability potential of renewable fuels and participated in a group presentation discussing the options to achieve carbon neutrality in Asia.

Member, Southampton University Space Flight Society (Malaysia) *Oct 2021 – Jun 2023*

Skills

CAD & Simulation	SolidWorks (intermediate), COMSOL (intermediate), Ansys (intermediate)
Programming	Python, Arduino, Simulink (beginners), html, CSS, JavaScript, Git
Linguistic Abilities	English (fluent), Mandarin (2nd language)

Interests

Flight Simulator, Blender/3D animation, Programming, Video Games